```
BBBBBBBBBBBB        AAAAAAAAA        CCCCCCCCCCC  KKK         KKK  UUU         UUU  PPPPPPPPPPPP
BBBBBBBBBBBB        AAAAAAAAA        CCCCCCCCCCC  KKK         KKK  UUU         UUU  PPPPPPPPPPPP
BBBBBBBBBBBB        AAAAAAAAA        CCCCCCCCCCC  KKK         KKK  UUU         UUU  PPPPPPPPPPPP
BBB         BBB  AAA         AAA  CCC            KKK         KKK  UUU         UUU  PPP         PPP
BBB         BBB  AAA         AAA  CCC            KKK         KKK  UUU         UUU  PPP         PPP
BBB         BBB  AAA         AAA  CCC            KKK         KKK  UUU         UUU  PPP         PPP
BBB         BBB  AAA         AAA  CCC            KKK       KKK    UUU         UUU  PPP         PPP
BBB         BBB  AAA         AAA  CCC            KKK       KKK    UUU         UUU  PPP         PPP
BBB         BBB  AAA         AAA  CCC            KKK       KKK    UUU         UUU  PPP         PPP
BBBBBBBBBBBB     AAA         AAA  CCC            KKKKKKKKK        UUU         UUU  PPPPPPPPPPPP
BBBBBBBBBBBB     AAA         AAA  CCC            KKKKKKKKK        UUU         UUU  PPPPPPPPPPPP
BBBBBBBBBBBB     AAA         AAA  CCC            KKKKKKKKK        UUU         UUU  PPPPPPPPPPPP
BBB         BBB  AAAAAAAAAAAAAAA  CCC            KKK       KKK    UUU         UUU  PPP
BBB         BBB  AAAAAAAAAAAAAAA  CCC            KKK       KKK    UUU         UUU  PPP
BBB         BBB  AAAAAAAAAAAAAAA  CCC            KKK       KKK    UUU         UUU  PPP
BBB         BBB  AAA         AAA  CCC            KKK         KKK  UUU         UUU  PPP
BBB         BBB  AAA         AAA  CCC            KKK         KKK  UUU         UUU  PPP
BBB         BBB  AAA         AAA  CCC            KKK         KKK  UUU         UUU  PPP
BBBBBBBBBBBB     AAA         AAA     CCCCCCCCCCC  KKK         KKK  UUUUUUUUUUUUUUUU  PPP
BBBBBBBBBBBB     AAA         AAA     CCCCCCCCCCC  KKK         KKK  UUUUUUUUUUUUUUUU  PPP
BBBBBBBBBBBB     AAA         AAA     CCCCCCCCCCC  KKK         KKK  UUUUUUUUUUUUUUUU  PPP
BBBBBBBBBBBB     AAA         AAA     CCCCCCCCCCC  KKK         KKK  UUUUUUUUUUUUUUUU  PPP
```

FILEID**STAINIT

```
  SSSSSSSS  TTTTTTTTTT    AAAAAA     IIIIII    NN      NN    IIIIII    TTTTTTTTTT
  SSSSSSSS  TTTTTTTTTT    AAAAAA     IIIIII    NN      NN    IIIIII    TTTTTTTTTT
SS              TT       AA    AA      II      NN      NN      II        TT
SS              TT       AA    AA      II      NN      NN      II        TT
SS              TT       AA    AA      II      NNNN    NN      II        TT
SS              TT       AA    AA      II      NNNN    NN      II        TT
  SSSSSS        TT       AA    AA      II      NN  NN  NN      II        TT
  SSSSSS        TT       AA    AA      II      NN  NN  NN      II        TT
        SS      TT       AAAAAAAAAA      II      NN    NNNN      II        TT
        SS      TT       AAAAAAAAAA      II      NN    NNNN      II        TT
        SS      TT       AA    AA      II      NN      NN      II        TT        ....
        SS      TT       AA    AA      II      NN      NN      II        TT        ....
SSSSSSSS        TT       AA    AA    IIIIII    NN      NN    IIIIII      TT        ....
SSSSSSSS        TT       AA    AA    IIIIII    NN      NN    IIIIII      TT        ....


LL              IIIIII     SSSSSSSS
LL              IIIIII     SSSSSSSS
LL                II     SS
LL                II     SS
LL                II     SS
LL                II     SS
LL                II       SSSSSS
LL                II       SSSSSS
LL                II             SS
LL                II             SS
LL                II             SS
LL                II             SS
LLLLLLLLLL      IIIIII     SSSSSSSS
LLLLLLLLLL      IIIIII     SSSSSSSS
```

```
;     1          0001  0 MODULE STAINIT  (%TITLE 'Standalone BACKUP initialization'
;     2          0002  0                  IDENT = 'V04-000'
;     3          0003  0                  ) =
;     4          0004  1 BEGIN
;     5          0005  1
;     6          0006  1 !
;     7          0007  1 !**********************************************************************************
;     8          0008  1 !*                                                                                *
;     9          0009  1 !*  COPYRIGHT (c) 1978, 1980, 1982, 1984 BY                                       *
;    10          0010  1 !*  DIGITAL EQUIPMENT CORPORATION, MAYNARD, MASSACHUSETTS.                        *
;    11          0011  1 !*  ALL RIGHTS RESERVED.                                                          *
;    12          0012  1 !*                                                                                *
;    13          0013  1 !*  THIS SOFTWARE IS FURNISHED UNDER A LICENSE AND MAY BE USED AND COPIED        *
;    14          0014  1 !*  ONLY IN  ACCORDANCE WITH  THE  TERMS  OF  SUCH  LICENSE  AND WITH THE       *
;    15          0015  1 !*  INCLUSION OF THE ABOVE COPYRIGHT NOTICE. THIS SOFTWARE OR  ANY  OTHER       *
;    16          0016  1 !*  COPIES THEREOF MAY NOT BE PROVIDED OR OTHERWISE MADE AVAILABLE TO ANY       *
;    17          0017  1 !*  OTHER PERSON.  NO TITLE TO AND OWNERSHIP OF  THE  SOFTWARE IS  HEREBY       *
;    18          0018  1 !*  TRANSFERRED.                                                                  *
;    19          0019  1 !*                                                                                *
;    20          0020  1 !*  THE INFORMATION IN THIS SOFTWARE IS  SUBJECT TO CHANGE WITHOUT NOTICE       *
;    21          0021  1 !*  AND  SHOULD  NOT  BE  CONSTRUED AS  A COMMITMENT BY DIGITAL EQUIPMENT       *
;    22          0022  1 !*  CORPORATION.                                                                  *
;    23          0023  1 !*                                                                                *
;    24          0024  1 !*  DIGITAL ASSUMES NO RESPONSIBILITY FOR THE USE  OR  RELIABILITY OF ITS       *
;    25          0025  1 !*  SOFTWARE ON EQUIPMENT WHICH IS NOT SUPPLIED BY DIGITAL.                       *
;    26          0026  1 !*                                                                                *
;    27          0027  1 !*                                                                                *
;    28          0028  1 !**********************************************************************************
;    29          0029  1 !
;    30          0030  1
;    31          0031  1 !++
;    32          0032  1 ! FACILITY:
;    33          0033  1 !       Backup/Restore
;    34          0034  1 !
;    35          0035  1 ! ABSTRACT:
;    36          0036  1 !       This module contains the routines that initialize the standalone
;    37          0037  1 !       BACKUP.
;    38          0038  1 !
;    39          0039  1 ! ENVIRONMENT:
;    40          0040  1 !       VAX/VMS user, executive, kernel mode.
;    41          0041  1 !--
;    42          0042  1 !
;    43          0043  1 ! AUTHOR: M. Jack, CREATION DATE: 06-Jan-1981
;    44          0044  1 !
;    45          0045  1 ! MODIFIED BY:
;    46          0046  1 !
;    47          0047  1 !       V03-003 CWH3003         CW Hobbs,               29-Oct-1983
;    48          0048  1 !               Change image name to STANDALON.EXE to match change to
;    49          0049  1 !               standalone VMS packaging.
;    50          0050  1 !
;    51          0051  1 !       V03-002 ACG53600        Andrew C. Goldstein,    10-Feb-1983  19:13
;    52          0052  1 !               Output ident message at startup. Condition disabling of
;    53          0053  1 !               bugcheck code on DUMPBUG SYSGEN parameter.
;    54          0054  1 !
;    55          0055  1 !       V03-001 MLJ0085         Martin L. Jack, 30-Mar-1982  12:59
;    56          0056  1 !               Copy a small routine over EXE$BUG_CHECK that types out a
;    57          0057  1 !               console message "Bugcheck" if a bugcheck occurs.  Since the
```

```
;   58          0058  1 !               console media containing the executive is not resident, the
;   59          0059  1 !               bugcheck code cannot be loaded.
;   60          0060  1 !
;   61          0061  1 !**
```

```
;    63          0062  1 REQUIRE 'SRC$:COMMON';
;    64          1168  1 LIBRARY 'SYS$LIBRARY:LIB';
;    65          1169  1
;    66          1170  1
;    67          1171  1 LINKAGE
;    68          1172  1         JSB=            JSB: NOPRESERVE(2,3,4,5,6,7,8,9,10,11),
;    69          1173  1         JSB_R0=         JSB(REGISTER=0): PRESERVE(0,1,2,3,4,5,6,7,8,9,10,11),
;    70          1174  1         JSB_PRESERVE=   JSB:;
;    71          1175  1
;    72          1176  1
;    73          1177  1 FORWARD ROUTINE
;    74          1178  1         STA_INIT:       NOVALUE,            ! Driver for initialization
;    75          1179  1         STA_BUGCHECK:   JSB NOVALUE,        ! Routine copied over EXE$BUG_CHECK
;    76          1180  1         STA_BUG_INSTALL,                    ! Install bugcheck code
;    77          1181  1         STA_HANDLER,                        ! Last-chance handler
;    78          1182  1         PUTMSG_ACTRTN,                      ! $PUTMSG action routine for handler
;    79          1183  1         STA_RESTART:    NOVALUE;            ! Restart standalone version
;    80          1184  1
;    81          1185  1
;    82          1186  1 EXTERNAL ROUTINE
;    83          1187  1         BOO$ACTIMAGE,                       ! Reactivate image
;    84          1188  1         CLI$DCL_PARSE:  ADDRESSING_MODE(GENERAL),
;    85          1189  1                                             ! Stand-alone command parser
;    86          1190  1         LIB$GET_COMMAND:ADDRESSING_MODE(GENERAL),
;    87          1191  1                                             ! Stand-alone get from SYS$COMMAND
;    88          1192  1         CON$PUTCHAR:ADDRESSING_MODE(GENERAL) JSB_R0 NOVALUE,
;    89          1193  1                                             ! Put a character out to the console
;    90          1194  1                                             ! terminal
;    91          1195  1         CON$OWNCTY:ADDRESSING_MODE(GENERAL) JSB_PRESERVE NOVALUE;
;    92          1196  1
;    93          1197  1
;    94          1198  1 EXTERNAL
;    95          1199  1         EXE$GL_FLAGS:   BITVECTOR       ADDRESSING_MODE(GENERAL),
;    96          1200  1                                         ! Executive flags longword
;    97          1201  1         VERSION_STRING  : VECTOR [,BYTE], ! BACKUP version string
;    98          1202  1         BACKUPCMD;                      ! Stand-alone command tables
;    99          1203  1
;   100          1204  1
;   101          1205  1 EXTERNAL LITERAL
;   102          1206  1         BACKUP$_IDENT,
;   103          1207  1         EXE$V_INIT:     UNSIGNED(6);    ! True if RMS and ACP are active
;   104          1208  1
;   105          1209  1
;   106          1210  1 G$DEFINE();                    ! Define global area
```

```
;  108          1211  1 %SBTTL 'STA_INIT - Stand-alone BACKUP initialization'
;  109          1212  1 GLOBAL ROUTINE STA_INIT: NOVALUE=
;  110          1213  1
;  111          1214  1 !++
;  112          1215  1 !
;  113          1216  1 ! FUNCTIONAL DESCRIPTION:
;  114          1217  1 !       This routine is the driver for initialization of the stand-alone
;  115          1218  1 !       BACKUP.
;  116          1219  1 !
;  117          1220  1 ! INPUT PARAMETERS:
;  118          1221  1 !       NONE
;  119          1222  1 !
;  120          1223  1 ! IMPLICIT INPUTS:
;  121          1224  1 !       NONE
;  122          1225  1 !
;  123          1226  1 ! OUTPUT PARAMETERS:
;  124          1227  1 !       NONE
;  125          1228  1 !
;  126          1229  1 ! IMPLICIT OUTPUTS:
;  127          1230  1 !       NONE
;  128          1231  1 !
;  129          1232  1 ! ROUTINE VALUE:
;  130          1233  1 !       NONE
;  131          1234  1 !
;  132          1235  1 ! SIDE EFFECTS:
;  133          1236  1 !       NONE
;  134          1237  1 !
;  135          1238  1 !--
;  136          1239  1
;  137          1240  2 BEGIN
;  138          1241  2 LOCAL
;  139          1242  2         BUFFER:         VECTOR[132,BYTE],       ! Command buffer
;  140          1243  2         DESC:           BBLOCK[8];              ! Local descriptor
;  141          1244  2 BUILTIN
;  142          1245  2         FP;
;  143          1246  2 MAP
;  144          1247  2         FP:             REF BBLOCK;
;  145          1248  2
;  146          1249  2
;  147          1250  2 ! Establish the general handler.  Since this routine is called by the main
;  148          1251  2 ! routine, this code will establish it as a stack handler in that routine.
;  149          1252  2 !
;  150          1253  2 .FP[SF$L_SAVE_FP] = STA_HANDLER;
;  151          1254  2
;  152          1255  2
;  153          1256  2 ! If we are really running standalone, copy our own routine over the exec's
;  154          1257  2 ! bugcheck code.
;  155          1258  2 !
;  156          1259  2 IF NOT .EXE$GL_FLAGS[EXE$V_INIT]
;  157          1260  2 THEN
;  158          1261  2     $CMKRNL(ROUTIN=STA_BUG_INSTALL);
;  159          1262  2
;  160          1263  2
;  161          1264  2 ! Output the ident message.
;  162          1265  2 !
;  163          1266  2
;  164          1267  2 SIGNAL (BACKUP$_IDENT, 3, %CHARCOUNT (BACKUP$VERSION), VERSION_STRING, 0);
```

```
;  165          1268  2
;  166          1269  2
;  167          1270  2 ! Get the command.
;  168          1271  2 !
;  169          1272  2 COM_FLAGS[COM_STANDALONE] = TRUE;
;  170          1273  2 DO
;  171          1274  3     BEGIN
;  172          1275  3     DESC[DSC$W_LENGTH] = 132;
;  173          1276  3     DESC[DSC$B_DTYPE] = DSC$K_DTYPE_T;
;  174          1277  3     DESC[DSC$B_CLASS] = DSC$K_CLASS_S;
;  175          1278  3     DESC[DSC$A_POINTER] = BUFFER;
;  176          1279  3     LIB$GET_COMMAND(DESC, $DESCRIPTOR(%CHAR(%O'012'), '$ '), DESC);
;  177          1280  3     END
;  178          1281  2 UNTIL
;  179          1282  3     BEGIN
;  180          1283  3     IF .DESC[DSC$W_LENGTH] EQL 0
;  181          1284  3         THEN FALSE
;  182          1285  3         ELSE CLI$DCL_PARSE(DESC, BACKUPCMD)
;  183          1286  2     END;
;  184          1287  1 END;


                                                .TITLE  STAINIT Standalone BACKUP initialization
                                                .IDENT  \V04-000\

                                                .PSECT  COMMON,NOEXE,  OVR,2

                                    00000 GLOBAL_BASE:
                                                .BLKB   0
                                    00000 FREE_LIST:
                                                .BLKB   8
                                    00008 INPUT_WAIT:
                                                .BLKB   8
                                    00010 REREAD_WAIT:
                                                .BLKB   8
                                    00018 OUTPUT_WAIT:
                                                .BLKB   8
                                    00020 JPI_UIC:.BLKB   4
                                    00024 JPI_USERNAME:
                                                .BLKB   12
                                    00030 JPI_DATE:
                                                .BLKB   8
                                    00038 JPI_NODE_DESC:
                                                .BLKB   8
                                    00040 JPI_CURPRIV:
                                                .BLKB   8
                                    00048 SYI_VERSION:
                                                .BLKB   4
                                    0004C SYI_SID:.BLKB   4
                                    00050 RWSV_HOLD_LIST:
                                                .BLKB   8
                                    00058 RWSV_CRC16:
                                                .BLKB   64
                                    00098 RWSV_AUTODIN:
                                                .BLKB   64
                                    000D8 RWSV_FILESET_ID:
                                                .BLKB   8
```

```
000E0 RWSV_VOLUME_ID:
                .BLKB   12
000EC RWSV_VOL_NUMBER:
                .BLKB   2
000EE RWSV_SEG_NUMBER:
                .BLKB   2
000F0 RWSV_FILE_NUMBER:
                .BLKB   4
000F4 RWSV_SAVE_QUAL:
                .BLKB   4
000F8 RWSV_SAVE_FAB:
                .BLKB   4
000FC RWSV_CHAN:
                .BLKB   4
00100 RWSV_XOR_BCB:
                .BLKB   4
00104 RWSV_IN_SEQ:
                .BLKB   4
00108 RWSV_IN_SEQ_0:
                .BLKB   4
0010C RWSV_IN_XOR_SEQ:
                .BLKB   4
00110 RWSV_IN_XOR_RFA:
                .BLKB   6
00116 RWSV_LOOKAHEAD:
                .BLKB   1
00117 RWSV_XORSIZE:
                .BLKB   1
00118 RWSV_IN_GROUP_SIZE:
                .BLKB   4
0011C RWSV_IN_ERRORS:
                .BLKB   2
0011E RWSV_IN_XORUSE:
                .BLKB   2
00120 RWSV_IN_ORGERR:
                .BLKB   8
00128 RWSV_IN_VBN:
                .BLKB   4
0012C RWSV_IN_VBN_0:
                .BLKB   4
00130 RWSV_ALLOC:
                .BLKB   4
00134 RWSV_EOF:
                .BLKB   4
00138 RWSV_OUT_SEQ:
                .BLKB   4
0013C RWSV_OUT_VBN:
                .BLKB   4
00140 RWSV_OUT_BLOCK_COUNT:
                .BLKB   4
00144 RWSV_OUT_ERRORS:
                .BLKB   2
00146 RWSV_SEQ_ERRORS:
                .BLKB   2
00148 RWSV_OUT_GROUP_COUNT:
                .BLKB   1
00149 RWSV_PADDING:
```

```
                                        .BLKB   3
0014C QUAL:                             .BLKB   112
001BC COM_SSNAME:
                                        .BLKB   8
001C4 COM_VALID_TYPES:
                                        .BLKB   2
001C6 COM_FLAGS:
                                        .BLKB   2
001C8 COM_PADDING:
                                        .BLKB   1
001C9 COM_BUFF_COUNT:
                                        .BLKB   1
001CA COM_I_SETCOUNT:
                                        .BLKB   1
001CB COM_O_SETCOUNT:
                                        .BLKB   1
001CC COM_I_STRUCNAME:
                                        .BLKB   12
001D8 COM_O_STRUCNAME:
                                        .BLKB   12
001E4 COM_O_BSRDATE:
                                        .BLKB   8
001EC ALT_SSNAME:
                                        .BLKB   32
0020C INPUT_FUNC:
                                        .BLKB   1
0020D INPUT_RTYPE:
                                        .BLKB   1
0020E OUTPUT_FUNC:
                                        .BLKB   1
0020F FAST_STRUCLEV:
                                        .BLKB   1
00210 INPUT_BEG:
                                        .BLKB   0
00210 INPUT_CHAN:
                                        .BLKB   4
00214 INPUT_FLAGS:
                                        .BLKB   2
00216 INPUT_PADDING:
                                        .BLKB   2
00218 INPUT_FAB:
                                        .BLKB   4
0021C INPUT_NAM:
                                        .BLKB   4
00220 INPUT_BCB:
                                        .BLKB   4
00224 INPUT_QUAL:
                                        .BLKB   4
00228 INPUT_BAD:
                                        .BLKB   4
0022C INPUT_BLOCK:
                                        .BLKB   4
00230 INPUT_MAXBLOCK:
                                        .BLKB   4
00234 INPUT_MEDIA_ID:
                                        .BLKB   4
00238 INPUT_NAMEDESC:
```

```
                                                .BLKB   8
                                00240 INPUT_STATBLK:
                                                .BLKB   8
                                00248 INPUT_HDR_BEG:
                                                .BLKB   0
                                00248 INPUT_CREDATE:
                                                .BLKB   8
                                00250 INPUT_REVDATE:
                                                .BLKB   8
                                00258 INPUT_EXPDATE:
                                                .BLKB   8
                                00260 INPUT_BAKDATE:
                                                .BLKB   8
                                00268 INPUT_FILEOWNER:
                                                .BLKB   4
                                0026C INPUT_FILECHAR:
                                                .BLKB   4
                                00270 INPUT_RECATTR:
                                                .BLKB   32
                                00290 INPUT_HDR_END:
                                                .BLKB   0
                                00290 INPUT_END:
                                                .BLKB   0
                                00290 INPUT_PROC_LIST:
                                                .BLKB   4
                                00294 INPUT_PLACEMENT:
                                                .BLKB   8
                                0029C INPUT_VBN_LIST:
                                                .BLKB   8
                                002A4 INPUT_PLACE_LEN:
                                                .BLKB   2
                                002A6 INPUT_PADDING_2:
                                                .BLKB   2
                                002A8 OUTPUT_BEG:
                                                .BLKB   0
                                002A8 OUTPUT_CHAN:
                                                .BLKB   4
                                002AC OUTPUT_FLAGS:
                                                .BLKB   2
                                002AE OUTPUT_PADDING:
                                                .BLKB   2
                                002B0 OUTPUT_FAB:
                                                .BLKB   4
                                002B4 OUTPUT_NAM:
                                                .BLKB   4
                                002B8 OUTPUT_BCB:
                                                .BLKB   4
                                002BC OUTPUT_QUAL:
                                                .BLKB   4
                                002C0 OUTPUT_BAD:
                                                .BLKB   4
                                002C4 OUTPUT_BLOCK:
                                                .BLKB   4
                                002C8 OUTPUT_MAXBLOCK:
                                                .BLKB   4
                                002CC OUTPUT_DEVGEOM:
                                                .BLKB   8
```

```
002D4 OUTPUT_ATTBUF:
                .BLKB   144
00364 OUTPUT_END:
                .BLKB   0
00364 LIST_TOTFILES:
                .BLKB   4
00368 LIST_TOTSIZE:
                .BLKB   4
0036C VERIFY_FAB:
                .BLKB   4
00370 VERIFY_USE_COUNT:
                .BLKB   4
00374 VERIFY_QUAL:
                .BLKB   4
00378 COMPARE_BCB:
                .BLKB   4
0037C FAST_BUFFER:
                .BLKB   4
00380 FAST_BUFFER_SIZE:
                .BLKB   4
00384 FAST_RVN:
                .BLKB   1
00385 FAST_PADDING:
                .BLKB   1
00386 DIR_VERLIMIT:
                .BLKB   2
00388 FAST_VOL_BEG:
                .BLKB   0
00388 FAST_IMAP_SIZE:
                .BLKB   4
0038C FAST_IMAP:
                .BLKB   4
00390 FAST_HDR_OFFSET:
                .BLKB   4
00394 FAST_BOOT_LBN:
                .BLKB   4
00398 FAST_VOL_END:
                .BLKB   0
00398 JOUR_BUFFER:
                .BLKB   4
0039C JOUR_DIR:
                .BLKB   4
003A0 JOUR_HIBLK:
                .BLKB   4
003A4 JOUR_EFBLK:
                .BLKB   4
003A8 JOUR_INBLK:
                .BLKB   4
003AC JOUR_FFBYTE:
                .BLKB   2
003AE JOUR_INBYTE:
                .BLKB   2
003B0 JOUR_STRUCT_LEV:
                .BLKB   2
003B2 JOUR_COUNT:
                .BLKB   1
003B3 JOUR_REVERSE:
```

```
                                                .BLKB   1
003B4 JOUR_EXSZ:
                                                .BLKB   2
003B6 JOUR_PADDING:
                                                .BLKB   2
003B8 CHKPT_HIGH_SP:
                                                .BLKB   4
003BC CHKPT_LOW_SP:
                                                .BLKB   4
003C0 CHKPT_STACK:
                                                .BLKB   4
003C4 CHKPT_VARS:
                                                .BLKB   4
003C8 CHKPT_STATUS:
                                                .BLKB   4
003CC DIR_BEG:.BLKB     0
003CC DIR_CHAN:
                                                .BLKB   4
003D0 DIR_NAM:.BLKB     4
003D4 DIR_DEV_DESC:
                                                .BLKB   4
003D8 DIR_SEL_DIR:
                                                .BLKB   8
003E0 DIR_SEL_NTV:
                                                .BLKB   8
003E8 DIR_STRUCLEV:
                                                .BLKB   1
003E9 DIR_LEVELS:
                                                .BLKB   1
003EA DIR_FLAGS:
                                                .BLKB   1
003EB DIR_STATUS:
                                                .BLKB   1
003EC DIR_STRING:
                                                .BLKB   320
0052C DIR_STACK:
                                                .BLKB   612
00790 DIR_SP:  .BLKB    4
00794 DIR_SEL_LATEST:
                                                .BLKB   4
00798 DIR_END:.BLKB     0
00798 DIR_SCANLIMIT:
                                                .BLKB   36
007BC INPUT_MTL:
                                                .BLKB   4
007C0 OUTPUT_MTL:
                                                .BLKB   4
007C4 CURRENT_MTL:
                                                .BLKB   4
007C8 CURRENT_VCB:
                                                .BLKB   4
007CC CURRENT_WCB:
                                                .BLKB   4
007D0 ACL_FIB_DESCR:
                                                .BLKB   8
007D8 ACL_FIB:.BLKB     64
00818 ACL_LENGTH:
```

```
                                                        .BLKB   4
                                        0081C ACL_BUFFER:
                                                        .BLKB   4
                                        00820 CRYP_IN_CONTEXT:
                                                        .BLKB   4
                                        00824 CRYP_OU_CONTEXT:
                                                        .BLKB   4
                                        00828 CRYP_DA_CONTEXT:
                                                        .BLKB   4
                                        0082C CRYP_DATA_ENCIV:
                                                        .BLKB   8
                                        00834 CRYP_DATA_CODE:
                                                        .BLKB   4
                                        00838 CRYP_DATA_KEY:
                                                        .BLKB   8
                                        00840 CRYP_DATA_IV:
                                                        .BLKB   8
                                        00848 CRYP_DATA_CKSM:
                                                        .BLKB   4

                                                        .PSECT  CODE,NOWRT,2

                                    0A  00000 P.AAB:    .ASCII  <10>                                    ;
                                  20 24 00001           .ASCII  \$ \                                    ;
                                        00003           .BLKB   1                                       ;
                                00000003  00004 P.AAA:  .LONG   3                                       ;
                                00000000' 00008         .ADDRESS P.AAB                                  ;

                                                        .EXTRN  BOO$ACTIMAGE, CLI$DCL_PARSE
                                                        .EXTRN  LIB$GET_COMMAND
                                                        .EXTRN  CON$PUTCHAR, CON$OWNCTY
                                                        .EXTRN  EXE$GL_FLAGS, VERSION_STRING
                                                        .EXTRN  BACKUPCMD, BACKUP$_IDENT
                                                        .EXTRN  EXE$V_INIT, SYS$CMKRNL

                                          0000 00000            .ENTRY  STA_INIT, Save nothing          ; 1212
                                    5E      FF74  CE    9E 00002        MOVAB   -140(SP), SP            ;
                                  0C    BD    0000V CF    9E 00007        MOVAB   STA_HANDLER, @12(FP)    ; 1253
                              0D 00000000G  00    00G E0  0000D        BBS     S^#EXE$V_INIT, EXE$GL_FLAGS, 1$ ; 1259
                                                7E  D4  00015        CLRL    -(SP)                   ; 1261
                                                    0000V CF    9F 00017        PUSHAB  STA_BUG_INSTALL
                                        00000000G   00      02  FB  0001B        CALLS   #2, SYS$CMKRNL
                                                7E  D4  00022 1$:    CLRL    -(SP)                   ; 1267
                                                    00000000G 00    9F 00024        PUSHAB  VERSION_STRING
                                                              04    DD 0002A        PUSHL   #4
                                                              03    DD 0002C        PUSHL   #3
                                                    00000000G 8F    DD 0002E        PUSHL   #BACKUP$_IDENT
                                        00000000G   00      05  FB  00034        CALLS   #5, LIB$SIGNAL
                                        00000000'   EF      02  88  0003B        BISB2   #2, COM_FLAGS   ; 1272
                                                6E  010E0084  8F  D0  00042 2$:    MOVL    #17694852, DESC ; 1275
                                              04    AE    08  AE  9E  00049        MOVAB   BUFFER, DESC+4  ; 1278
                                                          5E  DD  0004E        PUSHL   SP              ; 1279
                                                        A5  AF  9F  00050        PUSHAB  P.AAA
                                                        08  AE  9F  00053        PUSHAB  DESC
                                        00000000G   00      03  FB  00056        CALLS   #3, LIB$GET_COMMAND
                                                6E  B5  0005D        TSTW    DESC                    ; 1283
                                                E1  13  0005F        BEQL    2$                      ;
```

```
                                 00000000G  00  9F  00061         PUSHAB  BACKUPCMD                                        ; 1285
                                       04   AE  9F  00067         PUSHAB  DESC                                            ;
                           00000000G   00     02  FB  0006A         CALLS   #2, CLI$DCL_PARSE                               ;
                                       CE     50  E9  00071         BLBC    R0, 2$                                          ;
                                              04  00074         RET                                                     ; 1287

; Routine Size:  117 bytes,    Routine Base:  CODE + 000C
```

```
;   186          1288  1 %SBTTL 'STA_BUGCHECK - system bugcheck overlay'
;   187          1289  1 OWN STA_BUGCHECK_BEGIN: PSECT(CODE) VECTOR[0];
;   188          1290  1 FORWARD STA_BUGCHECK_MESSAGE: VECTOR[14,BYTE];
;   189          1291  1 ROUTINE STA_BUGCHECK: JSB NOVALUE=
;   190          1292  1
;   191          1293  1 !++
;   192          1294  1 !
;   193          1295  1 ! FUNCTIONAL DESCRIPTION:
;   194          1296  1 !       This routine is copied over EXE$BUG_CHECK by the initialization logic
;   195          1297  1 !       in order to trap bugchecks that might occur during execution of
;   196          1298  1 !       standalone BACKUP.
;   197          1299  1 !
;   198          1300  1 ! INPUT PARAMETERS:
;   199          1301  1 !       NONE
;   200          1302  1 !
;   201          1303  1 ! IMPLICIT INPUTS:
;   202          1304  1 !       NONE
;   203          1305  1 !
;   204          1306  1 ! OUTPUT PARAMETERS:
;   205          1307  1 !       NONE
;   206          1308  1 !
;   207          1309  1 ! IMPLICIT OUTPUTS:
;   208          1310  1 !       NONE
;   209          1311  1 !
;   210          1312  1 ! ROUTINE VALUE:
;   211          1313  1 !       NONE
;   212          1314  1 !
;   213          1315  1 ! SIDE EFFECTS:
;   214          1316  1 !       NONE
;   215          1317  1 !
;   216          1318  1 !--
;   217          1319  1
;   218          1320  2 BEGIN
;   219          1321  2 BUILTIN
;   220          1322  2         HALT,
;   221          1323  2         MFPR,
;   222          1324  2         MTPR;
;   223          1325  2 LOCAL
;   224          1326  2         P:              REF VECTOR[,BYTE],
;   225          1327  2         S;
;   226          1328  2
;   227          1329  2
;   228          1330  2 MTPR(%REF(IPL$_POWER), PR$_IPL);
;   229          1331  2 CON$DOWNCTY();
;   230          1332  2 P = STA_BUGCHECK_MESSAGE;
;   231          1333  2 DECR L FROM 14 TO 1 DO
;   232          1334  3     BEGIN
;   233          1335  3     S = .P[0];  P = .P + 1;  CON$PUTCHAR(.S);
;   234          1336  2     END;
;   235          1337  2 HALT();
;   236          1338  1 END;


                                                00081          .BLKB   3
                                                00084 STA_BUGCHECK_BEGIN:
                                                               .BLKB   0
```

```
                                12            1F  DA 00000 STA_BUGCHECK:
                                                           MTPR    #31, #18                                ; 1330
                            00000000G         00  16 00003           JSB     CON$OWNCTY                      ; 1331
                            52      0000V     CF  9E 00009           MOVAB   STA_BUGCHECK_MESSAGE, P         ; 1332
                            51                0E  D0 0000E           MOVL    #14, L                          ; 1333
                            50                82  9A 00011 1$:       MOVZBL  (P)+, S                         ; 1335
                            00000000G         00  16 00014           JSB     CON$PUTCHAR                     ;
                            F4                51  F5 0001A           SOBGTR  L, 1$                           ; 1333
                                              00  0001D             HALT                                    ; 1337
                                              05  0001E             RSB                                     ; 1338

; Routine Size:  31 bytes,    Routine Base:  CODE + 0084

;  237          1339  1 OWN STA_BUGCHECK_MESSAGE: PSECT(CODE) VECTOR[14,BYTE]
;  238          1340  1 INITIAL(BYTE
;  239          1341  1     (%CHAR(%O'015', %O'012', 0, 0), 'Bugcheck', %CHAR(%O'015', %O'012')));
;  240          1342  1 OWN STA_BUGCHECK_END: PSECT(CODE) VECTOR[0];
```

```
;   242          1343  1 %SBTTL 'STA_BUG_INSTALL - install bugcheck overlay'
;   243          1344  1 ROUTINE STA_BUG_INSTALL=
;   244          1345  1
;   245          1346  1 !++
;   246          1347  1 !
;   247          1348  1 ! FUNCTIONAL DESCRIPTION:
;   248          1349  1 !       This routine is called in kernel mode to install the bugcheck routine
;   249          1350  1 !       over EXE$BUG_CHECK.
;   250          1351  1 !
;   251          1352  1 ! INPUT PARAMETERS:
;   252          1353  1 !       NONE
;   253          1354  1 !
;   254          1355  1 ! IMPLICIT INPUTS:
;   255          1356  1 !       Code between STA_BUGCHECK_BEGIN and STA_BUGCHECK_END.
;   256          1357  1 !
;   257          1358  1 ! OUTPUT PARAMETERS:
;   258          1359  1 !       NONE
;   259          1360  1 !
;   260          1361  1 ! IMPLICIT OUTPUTS:
;   261          1362  1 !       Code between STA_BUGCHECK_BEGIN and STA_BUGCHECK_END moved to
;   262          1363  1 !       EXE$BUG_CHECK.
;   263          1364  1 !
;   264          1365  1 ! ROUTINE VALUE:
;   265          1366  1 !       SS$_NORMAL
;   266          1367  1 !
;   267          1368  1 ! SIDE EFFECTS:
;   268          1369  1 !       NONE
;   269          1370  1 !
;   270          1371  1 !--
;   271          1372  1
;   272          1373  2 BEGIN
;   273          1374  2 LINKAGE
;   274          1375  2         INI=                            JSB:    PRESERVE(0,1,2,3,4,5,6,7,8,9,10,11);
;   275          1376  2 EXTERNAL ROUTINE
;   276          1377  2         INI$WRITABLE:                   INI NOVALUE ADDRESSING_MODE(GENERAL),
;   277          1378  2         INI$RDONLY:                     INI NOVALUE ADDRESSING_MODE(GENERAL);
;   278          1379  2 EXTERNAL LITERAL
;   279          1380  2         EXE$V_BUGDUMP   : UNSIGNED (6);
;   280          1381  2 EXTERNAL
;   281          1382  2         EXE$GL_FLAGS    : BITVECTOR ADDRESSING_MODE (GENERAL),
;   282          1383  2         EXE$BUG_CHECK:          ADDRESSING_MODE(GENERAL);
;   283          1384  2
;   284          1385  2
;   285          1386  2 IF NOT .EXE$GL_FLAGS[EXE$V_BUGDUMP]
;   286          1387  2 THEN
;   287          1388  3     BEGIN
;   288          1389  3     INI$WRITABLE();                 ! Make system writable
;   289          1390  3     CH$MOVE(STA_BUGCHECK_END-STA_BUGCHECK_BEGIN, STA_BUGCHECK_BEGIN, EXE$BUG_CHECK);
;   290          1391  3     INI$RDONLY();                   ! Make system read-only
;   291          1392  3     END;
;   292          1393  2
;   293          1394  2 SS$_NORMAL
;   294          1395  1 END;


                                                000A3          .BLKB   1
```

```
                                 00  00  0A  0D  000A4 STA_BUGCHECK_MESSAGE:
                                                       .ASCII  <13><10><0><0>                          ;
                         68  63  65  68  63  67  75  42 000A8           .ASCII  \Bugcheck\                              ;
                                             0A  0D  000B0           .ASCII  <13><10>                                ;
                                                 000B2           .BLKB   2
                                                 000B4 STA_BUGCHECK_END:
                                                       .BLKB   0

                                                       .EXTRN  INI$WRITABLE, INI$RDONLY
                                                       .EXTRN  EXE$V_BUGDUMP, EXE$BUG_CHECK

                                             0FFC 00000 STA_BUG_INSTALL:
                                                       .WORD   Save R2,R3,R4,R5,R6,R7,R8,R9,R10,R11    ; 1344
                    15 00000000G  00                00G E0 00002           BBS     S^EXE$V_BUGDUMP, EXE$GL_FLAGS, 1$       ; 1386
                                         00000000G  00  16 0000A           JSB     INI$WRITABLE                            ; 1389
          00000000G  00       BC   AF                30  28 00010           MOVC3   #48, STA_BUGCHECK_BEGIN, EXE$BUG_CHECK  ; 1390
                                         00000000G  00  16 00019           JSB     INI$RDONLY                              ; 1391
                              50                    01  D0 0001F 1$:       MOVL    #1, R0                                  ; 1395
                                                    04 00022           RET                                             ;

; Routine Size:  35 bytes,    Routine Base:  CODE + 00B4
```

```
;   296         1396  1 %SBTTL 'STA_HANDLER - top level condition handler'
;   297         1397  1 ROUTINE STA_HANDLER(SIGNAL,MECHANISM)=
;   298         1398  1
;   299         1399  1 !++
;   300         1400  1 !
;   301         1401  1 ! FUNCTIONAL DESCRIPTION:
;   302         1402  1 !       This routine is established as a stack condition handler in the main
;   303         1403  1 !       routine for the standalone version.  It calls $PUTMSG to output a
;   304         1404  1 !       signalled message.  Then, if the message is fatal, it calls STA_RESTART
;   305         1405  1 !       to start the image over (or exit).
;   306         1406  1 !
;   307         1407  1 ! INPUT PARAMETERS:
;   308         1408  1 !       SIGNAL          - Standard VMS condition handler
;   309         1409  1 !       MECHANISM       -     parameters
;   310         1410  1 !
;   311         1411  1 ! IMPLICIT INPUTS:
;   312         1412  1 !       NONE
;   313         1413  1 !
;   314         1414  1 ! OUTPUT PARAMETERS:
;   315         1415  1 !       NONE
;   316         1416  1 !
;   317         1417  1 ! IMPLICIT OUTPUTS:
;   318         1418  1 !       NONE
;   319         1419  1 !
;   320         1420  1 ! ROUTINE VALUE:
;   321         1421  1 !       SS$_CONTINUE
;   322         1422  1 !
;   323         1423  1 ! SIDE EFFECTS:
;   324         1424  1 !       If the message is of fatal severity, image is re-activated (or exits).
;   325         1425  1 !
;   326         1426  1 !--
;   327         1427  1
;   328         1428  2 BEGIN
;   329         1429  2 MAP
;   330         1430  2         SIGNAL:         REF BBLOCK,     ! Signal parameters
;   331         1431  2         MECHANISM:      REF BBLOCK;     ! Mechanism parameters
;   332         1432  2
;   333         1433  2
;   334         1434  2 IF .SIGNAL[CHF$L_SIG_NAME] NEQ SS$_UNWIND
;   335         1435  2 THEN
;   336         1436  3     BEGIN
;   337         1437  3
;   338         1438  3     ! Call $PUTMSG to issue the message, after stripping the PC and PSL from
;   339         1439  3     ! the signal arguments.
;   340         1440  3     !
;   341         1441  3     SIGNAL[CHF$L_SIG_ARGS] = .SIGNAL[CHF$L_SIG_ARGS] - 2;
;   342         1442  3     $PUTMSG(MSGVEC=.SIGNAL, ACTRTN=PUTMSG_ACTRTN);
;   343         1443  3
;   344         1444  3
;   345         1445  3     ! If the message was fatal, restart the image (or exit).
;   346         1446  3     !
;   347         1447  3     IF .BBLOCK[SIGNAL[CHF$L_SIG_NAME], STS$V_SEVERITY] EQL STS$K_SEVERE
;   348         1448  3     THEN
;   349         1449  3         STA_RESTART();
;   350         1450  2     END;
;   351         1451  2
;   352         1452  2
```

```
;  353          1453  2 SS$_CONTINUE
;  354          1454  1 END;


                                                                .EXTRN  SYS$PUTMSG

                                                0004 00000 STA_HANDLER:
                                                                .WORD   Save R2                                         ; 1397
                                     52     04   AC  D0 00002          MOVL    SIGNAL, R2                              ; 1434
                          00000920   8F     04   A2  D1 00006          CMPL    4(R2), #2336                            ;
                                                 1F  13 0000E          BEQL    1$                                      ;
                                     62          02  C2 00010          SUBL2   #2, (R2)                                ; 1441
                                                 7E  7C 00013          CLRQ    -(SP)                                   ; 1442
                                   0000V CF     9F  9F 00015          PUSHAB  PUTMSG_ACTRTN                           ;
                                                 52  DD 00019          PUSHL   R2                                      ;
                          00000000G  00          04  FB 0001B          CALLS   #4, SYS$PUTMSG                          ;
          04        04    A2                     00  ED 00022          CMPZV   #0, #3, 4(R2), #4                       ; 1447
                                                 05  12 00028          BNEQ    1$                                      ;
                                 0000V CF        00  FB 0002A          CALLS   #0, STA_RESTART                         ; 1449
                                     50          01  D0 0002F 1$:      MOVL    #1, R0                                  ; 1454
                                                 04  00032              RET                                             ;

; Routine Size:  51 bytes,    Routine Base:  CODE + 00D7
```

```
;   356          1455  1 %SBTTL 'PUTMSG_ACTRTN - $PUTMSG action routine'
;   357          1456  1 GLOBAL ROUTINE PUTMSG_ACTRTN(DESC)=
;   358          1457  1
;   359          1458  1 !++
;   360          1459  1 !
;   361          1460  1 ! FUNCTIONAL DESCRIPTION:
;   362          1461  1 !       This routine is the $PUTMSG action routine for the general
;   363          1462  1 !       handler.  It uses the stand-alone LIB$PUT_OUTPUT to write each
;   364          1463  1 !       message line on the terminal.
;   365          1464  1 !
;   366          1465  1 ! INPUT PARAMETERS:
;   367          1466  1 !       DESC            - Descriptor for message line.
;   368          1467  1 !
;   369          1468  1 ! IMPLICIT INPUTS:
;   370          1469  1 !       NONE
;   371          1470  1 !
;   372          1471  1 ! OUTPUT PARAMETERS:
;   373          1472  1 !       NONE
;   374          1473  1 !
;   375          1474  1 ! IMPLICIT OUTPUTS:
;   376          1475  1 !       NONE
;   377          1476  1 !
;   378          1477  1 ! ROUTINE VALUE:
;   379          1478  1 !       False, to prevent $PUTMSG from writing the line.
;   380          1479  1 !
;   381          1480  1 ! SIDE EFFECTS:
;   382          1481  1 !       NONE
;   383          1482  1 !
;   384          1483  1 !--
;   385          1484  1
;   386          1485  2 BEGIN
;   387          1486  2 EXTERNAL ROUTINE
;   388          1487  2         LIB$PUT_OUTPUT;
;   389          1488  2
;   390          1489  2
;   391          1490  2 LIB$PUT_OUTPUT(.DESC);
;   392          1491  2 FALSE
;   393          1492  1 END;


                                                        .EXTRN  LIB$PUT_OUTPUT

                                                0000 00000      .ENTRY  PUTMSG_ACTRTN, Save nothing             ; 1456
                                          04    AC   DD 00002   PUSHL   DESC                                    ; 1490
                            00000000G     00         01   FB 00005   CALLS   #1, LIB$PUT_OUTPUT                 ;
                                                     50   D4 0000C   CLRL    R0                                 ; 1492
                                                          04 0000E   RET                                        ;

; Routine Size:  15 bytes,    Routine Base:  CODE + 010A
```

```
;   395          1493  1 %SBTTL 'STA_RESTART - stand-alone image restart'
;   396          1494  1 GLOBAL ROUTINE STA_RESTART: NOVALUE=
;   397          1495  1
;   398          1496  1 !++
;   399          1497  1 !
;   400          1498  1 ! FUNCTIONAL DESCRIPTION:
;   401          1499  1 !       This routine is called when image execution should terminate.  If
;   402          1500  1 !       running online, it exits.  If running standalone, it restarts by
;   403          1501  1 !       calling BOO$ACTIMAGE to re-activate the image.
;   404          1502  1 !
;   405          1503  1 ! INPUT PARAMETERS:
;   406          1504  1 !       NONE
;   407          1505  1 !
;   408          1506  1 ! IMPLICIT INPUTS:
;   409          1507  1 !       EXE$GL_FLAGS[EXE$V_INIT] - True if running online.
;   410          1508  1 !
;   411          1509  1 ! OUTPUT PARAMETERS:
;   412          1510  1 !       NONE
;   413          1511  1 !
;   414          1512  1 ! IMPLICIT OUTPUTS:
;   415          1513  1 !       NONE
;   416          1514  1 !
;   417          1515  1 ! ROUTINE VALUE:
;   418          1516  1 !       NONE
;   419          1517  1 !
;   420          1518  1 ! SIDE EFFECTS:
;   421          1519  1 !       Image is re-activated (or exits).  Thus, control should not return.
;   422          1520  1 !
;   423          1521  1 !--
;   424          1522  1
;   425          1523  2 BEGIN
;   426          1524  2
;   427          1525  2 ! If running standalone, re-activate the image.
;   428          1526  2 !
;   429          1527  2 IF NOT .EXE$GL_FLAGS[EXE$V_INIT]
;   430          1528  2 THEN
;   431          1529  2     BOO$ACTIMAGE($DESCRIPTOR('STANDALON.EXE'));
;   432          1530  2
;   433          1531  2
;   434          1532  2 ! Re-activate failed or not executed.
;   435          1533  2 !
;   436          1534  2 $EXIT();
;   437          1535  1 END;


                                                00119 P.AAD:    .ASCII  \STANDALON.EXE\                          ;
                                                00126           .BLKB   2
                                    0000000D    00128 P.AAC:    .LONG   13                                       ;
                                    00000000'   0012C           .ADDRESS P.AAD                                   ;

                                                                .EXTRN  SYS$EXIT

                                                0000 00000      .ENTRY  STA_RESTART, Save nothing                ; 1494
                    0A 00000000G   00           00G E0 00002    BBS     S^#EXE$V_INIT, EXE$GL_FLAGS, 1$          ; 1527
                                           EB   AF   9F 0000A   PUSHAB  P.AAC                                    ; 1529
                       00000000G   00           01   FB 0000D   CALLS   #1, BOO$ACTIMAGE                        ;
```

```
                                 01  DD 00014 1$:     PUSHL   #1                                      ; 1534
                    00000000G    00  01  FB 00016         CALLS   #1, SYS$EXIT                       ;
                                     04 0001D           RET                                        ; 1535

; Routine Size:  30 bytes,    Routine Base:  CODE + 0130
```

```
;  439          1536  1 END
;  440          1537  0 ELUDOM


                                                        .EXTRN  LIB$SIGNAL

;                               PSECT SUMMARY
;
;       Name                    Bytes                   Attributes
;
;  COMMON                         2124  NOVEC,  WRT,  RD ,NOEXE,NOSHR,  LCL,  REL,  OVR,NOPIC,ALIGN(2)
;  CODE                            334  NOVEC,NOWRT,  RD ,  EXE,NOSHR,  LCL,  REL,  CON,NOPIC,ALIGN(2)


;                           Library Statistics
;                                        -------- Symbols --------      Pages       Processing
;       File                             Total    Loaded   Percent      Mapped      Time
;
;  _$255$DUA28:[SYSLIB]LIB.L32;1          18619        23         0        1000        00:02.2




;                                       COMMAND QUALIFIERS

;       BLISS/CHECK=(FIELD,INITIAL,OPTIMIZE)/LIS=LIS$:STAINIT/OBJ=OBJ$:STAINIT MSRC$:STAINIT/UPDATE=(ENH$:STAINIT)

; Size:         279 code + 2179 data bytes
; Run Time:         00:18.6
; Elapsed Time:     00:57.1
; Lines/CPU Min:     4971
; Lexemes/CPU-Min: 42401
; Memory Used:  217 pages
; Compilation Complete
```

STABACCOP
LIS

STAINIT
LIS

TAPEUTIL
LIS

STAINIVOL
LIS

UTILITY
LIS

STAIOSYS
LIS

STAPARSE
LIS